DOCUMENT RESUME

ED 032 156 RC 003 586

By-De Jong, Gordon F.

Is Out-Migration from Appalachia Declining?

Pub Date 68

Note-17p.; Paper presented at Rural Sociological Society Meeting (San Francisco, California, August 28-31, 1969)

EDRS Price MF-$0.25 HC-$0.95

Descriptors-*Census Figures, Migrant Problems, *Migration Patterns, *Population Trends, *Rural Areas, Statistical Data, *Urban Immigration

Identifiers-*Appalachia

Evidence of a marked decline in the number and rate of net out-migration from the Southern Appalachians during the 1960-66 period as compared with the 1950-60 decade is presented in this paper. There remains, however, considerable variation among the migration patterns for counties in different parts of the region. In all, nearly one-quarter of the 190 counties recorded net migration gains and an almost equal proportion reported net migration losses between 1960 and 1966. The discussion on some possible explanations for the marked change in migration patterns considers industrialization and urbanization, fertility decline, increased enrollments in colleges, and possible errors in the population estimates methodology. The paper concludes by relating the findings to the broader context of rural-to-urban migration as a public policy issue. (Author/DK)

ED032156

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

Is Out-Migration from Appalachia Declining?

by

Gordon F. De Jong

Associate Professor of Sociology

The Pennsylvania State University

RC003586

ABSTRACT

Is Out-Migration from Appalachia Declining?

This paper presents evidence of a marked decline in the number and rate of net out-migration from the Southern Appalachians during the 1960-66 period as compared with the 1950-60 decade. There remains, however, considerable variation among the migration patterns for counties in different parts of the region. In all, nearly one-quarter of the 190 counties recorded net migration gains and an almost equal proportion reported heavy net migration losses between 1960 and 1966. The discussion on some possible explanations for the marked change in migration patterns considers industrialization and urbanization, fertility decline, increased enrollments in colleges, and possible errors in the population estimates methodology. The paper concludes by relating the findings to the broader context of rural-to-urban migration as a public policy issue.

Rural-to-urban migration is again an issue of policy concern. As this sentence implies, this is not a new issue. In the 1930's, for example, the pervasive great depression had implications for internal migration patterns. Many people left rural areas for the supposed jobs in the cities, while some of their disillusioned urban cousins returned to the farm. The 1938 report of the National Resource Committee noted the differing migration streams and their impact on attempts to improve economic conditions. The Committee concluded that governmental agencies should encourage the free movement of workers from agricultural areas of limited economic opportunity.[1] The extensive realization of this recommendation came in the 1940's when the concern was to induce potential workers to urban centers to fill the enormous war-related demand for labor. And while the flow usually followed well-established migration stream beds, the volumn of urbanward migration was greatly increased.

The policy-related concern for rural-to-urban migration in the 1960's stems from the crisis of American cities. The extensive urbanization of the United States population has been largely a consequence of migration. The size and scope of rural-to-urban migration along with the characteristics of its migrants has tended to aggravate housing, poverty, education, and racial integration problems. And, as is well known, it is in the largest cities that these problems are most exaggerated. These and similar findings recently prompted the Advisory Commission on Intergovernmental Relations to call for policies directed toward a more balanced pattern of urbanization involving a redistribution of the nation's population.[2]

From a policy-making viewpoint, there are four groups which simultaneously contribute to current rural-to-urban migration streams and to some of the frequently discussed urban social problems. These groups are the Southern Negroes, the Appalachian whites, the Mexican-Americans, and the American Indians. This

paper concerns what has happened to the trends in net migration in the Southern Appalachians during the period from 1960 to 1966.

Methodology

The data for this study are from mid-year 1966 U.S. Bureau of the Census estimates of population for counties.[3] The estimates relate to the total resident population in each county; that is, the civilian population in addition to members of the Armed Forces stationed in the area. The estimates are for total population, together with the components of population change (births, deaths, and migration) for the period since April 1, 1960.

"Three methods are employed by the Bureau of the Census in developing current county estimates. They are (1) the Bureau's Component Method II, which employs vital statistics to measure natural increase and school enrollment (or school census) data as a basis for measuring net migration; (2) a composite method, in which separate estimates are prepared for different segments of the population using different types of current data for each group; and (3) a housing unit method, in which estimated changes in the number of occupied housing units are used as the basis for estimating changes in population."[4] As a final step, the results of the three methods were averaged and adjusted to an independent state estimated total. Additional adjustments were made as needed for special population groups, such as college and institutional populations, since the usual estimating methodology does not fully reflect large or unusual changes in these groups. Net migration represents the balance between the numbers of persons migrating into-and-out-of a county. These estimates are residuals obtained by subtracting estimated survivors (the 1960 population, plus births and minus deaths) from the 1966 estimated total population. Migration rates are the estimates expressed as a percentage of the base year population.

Findings

Historically, population growth in the Southern Appalachians has paralleled the trend for the nation's growth (Table 1). However, the 1960 census count of 5,672,198 indicated that the population change for the ten-year period since 1950 was much different from national trends. While the national population increased more than 18 percent, the Southern Appalachian Region population decreased by 2.8 percent or about 160,000 persons. This was the first time since census data have been available that the population of the region had not increased. The 1960-66 period continued this general picture. The total population of Southern Appalachia changed very little (-0.1 percent) while the total United States population increased by 9.3 percent during the six-year period.

The dynamics of Appalachian population trends are primarily the consequence of out-migration and fertility decline. The focus here is on migration which has been a fact of life for many Southern Appalachian Region residents desiring a higher level of living. The extent of this perspective is suggested by the title of a report by Brown and Hillery, "The Great Migration, 1940-1960."[5] In the ten-year period between 1950 and 1960 the region had an estimated net loss of 1,108,134 people by migration.[6] For the 1940 to 1950 decade, the estimated net migration loss was somewhat less - 705,849. Thus, for the two decades the region's estimated net migration loss exceeded the staggering total of 1,800,000 persons.

The exodus is also documented by county migration data. Between 1940 and 1950 only fourteen of the 190 Southern Appalachian counties recorded a net migration gain in population. For the 1950 to 1960 decade the number declined to ten counties. This confirms the evidence of increased out-migration and also suggests that most of the region's counties that did gain population could attribute the rise to natural increase rather than to in-migration.

Migration for the 1960-66 period shows a different trend (Table 2). The estimated annual number of migrants and the net migration rate were only about one-third what they were during the 1950-60 decade and about one-half of the 1940-50 figure. From an estimated yearly net out-migration of nearly 111,000 persons for the 1950-60 decade, the figure for the 1960-66 period was about 36,000. Similarly the estimated yearly net migration rate during the 1950's was -1.9 percent compared to -0.6 percent in the 1960-66 period. The change is also reflected in county data where 44 of the region's 190 counties recorded net migration gains between 1960 and 1966 compared to only ten counties during the 1950-60 decade.

The change in the migration pattern was not uniform for all Appalachian counties. In fact, the variation between county migration patterns is a salient feature of the data. This variability is evident in Figures 1 and 2 which show counties grouped on the basis of estimated annual net migration rates for 1960-66 and 1950-60, respectively, and Figures 3 and 4 which present similar annual estimates of the number of migrants by county.

For those unfamiliar with Appalachia, there are three distinctive physiographic features in the region. The Blue Ridge, the Great Smoky, and the Black mountains form the eastern edge of the region. Next comes the Great Valley, which is actually a series of valleys located primarily in Tennessee and Virginia. The western part of the region consists of the Cumberland and Allegheny plateaus which cover most of West Virginia and eastern Kentucky.

The overwhelming pattern of high net migration loss in the 1950's is evident from Figures 2 and 4. In fact the scope of out-migration for most Appalachian counties was so pervasive that a differentiation between the number of migrants and the migration rate is of little analytical utility. The most notable out-migration areas were in eastern Kentucky, western Virginia, northeastern

Tennessee, and most of West Virginia. The few counties with net migration gains tended to be located within or adjacent to the metropolitan areas of Chattanooga and Knoxville, Tennessee, Asheville, North Carolina, and Roanoke, Virginia or in the Shenandoah Valley.

By the 1960-66 period (Figures 1 and 3) the constellation of counties with high migration losses was considerably reduced but still located primarily in eastern Kentucky, southern West Virginia, northeastern Tennessee, and western Virginia. Many of these are mining counties which formerly had sizable labor forces in extractive-related industries. While the elimination of jobs in the once-bustling coalfields has been in progress for some twenty years now, a population-economy imbalance is still quite evident. In other West Virginia and eastern Kentucky counties, out-migration has begun to decline.

Some differences in pattern can be noted between the rates of migration as shown in Figure 1 and the number of migrants as shown in Figure 3. While the coal areas stand out as high out-migration counties on both maps, Figure 3 indicates that the number of migrants from these areas is still quite high even if the rate has declined somewhat. Also with high estimated annual number of out-migrants were the metropolitan centers of Chattanooga, Tennessee, Charleston, West Virginia, and the Huntington, West Virginia - Ashland, Kentucky area. For Chattanooga, net migration gains in surrounding counties suggest the possibility of a suburbanization trend, however, this explanation is not applicable for the Charleston and Huntington areas which recorded net migration losses in both the 1950's and the 1960's.

Most of the counties with net migration gains between 1960 and 1966 were located either on the eastern mountain slopes or in the Great Valley area. One group of net in-migration counties was located between Chattanooga and Atlanta. Another group included the Knoxville metropolitan areas and extended northeast

in the Tennessee Valley. A sizable number of counties in western North Carolina formed a third group. The Shenandoah Valley area, including Roanoke, Virginia, and the eastern panhandle area of West Virginia constituted a fourth group of net in-migration counties. The pattern was much the same for these counties on both the number and rate of migration maps. Although three metropolitan centers are included in this group of net in-migration areas, most of the counties have small but growing urban places which provide the foci for industrial diversification in manufacturing, commerce, and agriculture.

Discussion

A full explanation of the change in migration pattern in Southern Appalachia is beyond the scope of this paper and may await the availability of more extensive data from the 1970 Census. In the absence of this type of data, several factors can be suggested for later testing. Perhaps a technical note should start the discussion. The methodology for small area population projections is still fairly crude albeit improving. The U.S. Bureau of the Census estimates are based on the three methods which have the greatest predictive reliability.[7] However, the quality of population estimates is best for large and stable population units. Unfortunately, for this purpose, Appalachia has many counties with small and declining populations and very few with large and stable populations. Thus there remains the possibility that estimating errors may have exerted an impact on the migration patterns presented.

The marked change in the migration pattern between the 1950 decade and the 1960-66 period may indicate a "pay-off" for some of the long-term development efforts to diversify the industrial base of the region. This effort is usually considered in terms of the addition of manufacturing and, indeed, there is considerable congruence between the 1960-66 county migration patterns and

Quittmeyer and Thompson's county data on changes in the value added by manufacturing between 1929-1954 and changes in the number of persons employed in manufacturing.[8] Increased urbanization has been one of several "spin-off" effects of manufacturing which, along with other types of area development efforts such as tourism, has influenced the Appalachian employment opportunity picture. After decades of population-economy imbalance, an equilibrium may be approaching in some areas of Appalachia.

A third possible explanation for changes in the net migration pattern may be in the demographic consequences of fertility decline. In 1940 the general fertility rate in the Southern Appalachian Region was more than 50 percent above the national average. However, by 1950 the regional rate had declined to only about 20 percent above the national rate. Ten years later the regional-national fertility differential had disappeared.[9] While the out-migration of the 1940's and 1950's most certainly affected fertility decline, it is likewise true that the decline in the number of births during this period affected the number of potential migrants in the 1960-66 period. Furthermore, there is a marked congruence between county migration patterns in Figures 1 and 3 and the distribution of low fertility counties presented by the author in a prior study.[10] Thus, at least a partial explanation for the changing migration pattern may lie in the dynamics of the demographic system in Appalachia.

One final serendipitous influence on county migration patterns can be noted. For 20 percent of the counties which registered net migration gains during the 1960-66 period, the Census Bureau population estimates included special adjustments for college or institutional populations.[11] Since such adjustments are necessitated only when large or unusual changes were recorded, it is probably safe to conclude that rapid increases, notably in college enrollments, had an influence on the net migration pattern of at least nine Appalachian

counties. Large enrollment changes also affect local employment opportunities which may, in turn, have further consequences for migration trends.

In conclusion, let me return to the policy-related concern for rural-to-urban migration. The data suggest that the massive influx of rural Appalachian migrants to eastern, northern, and mid-western cities outside the region may be declining. At least the number of net out-migrants during 1960-66 period was considerably below the level for the 1950-60 decade. Along with the possible reasons already mentioned for the change in the migration pattern, it is certainly a viable hypothesis that the great metropolitan centers outside the region no longer hold the strong attraction for Appalachian residents as was previously the case. With declining migration, the urban problems attendant with this migrant group may not be markedly aggravated but provide urban officials with an opportunity to develop more effective programs directed toward the integration of Appalachian migrants into urban life.

While the shift in the Appalachian migration pattern coincides with the Advisory Commission's recommendations for less population concentration in the large cities, this migration change was not the result of an explicit policy. Rather it was the response of families and individuals to a combination of "push" and "pull" factors within Appalachia and the cities outside the region. For Appalachia the policy question may not be "How do we keep migrants from piling into the big cities?" but, "What are the consequences of the decline in out-migration for regional social and economic problems?" It is much easier to suggest population redistribution as a policy than to anticipate its consequences.

It is important to realize, however, that a decline in net out-migration does not signal an end to rural Appalachian migration to the city. Net migration is merely the balance of the gross number of out-and-in-migrants, and

gross migration can be sizable and still balance out to near zero net migration. Indeed there can be and frequently is a net migration loss of young people in Appalachian counties even though there is a net migration gain for the older age groups. The implication of such an age-specific migration pattern for policies and programs, such as the Job Corps, seems apparent. The youth, of course, are most impatient to enjoy the goods and services of the affluent society and are most likely to make the sometimes risky jump from rural Appalachia to the city, even though employment opportunities may be improving locally. Efforts to assist rather than impede decisions to leave would be unique, especially if the efforts included thorough educational and occupational preparation for automation and urbanization. These types of anticipatory socialization and education efforts obviously eclipse the traditional social and political norms of state-oriented educational systems. Nevertheless, such efforts could have significant consequences for the areas of origin and the areas of destination of rural Appalachian migrants.

Footnotes

1. National Resources Committee, The Problems of A Changing Population. Washington: U.S. Government Printing Office, 1938.

2. Advisory Commission on Intergovernmental Relations, Urban and Rural America: Policies for Future Growth. Washington: U.S. Government Printing Office, A-32, 1968.

3. U.S. Bureau of the Census, Current Population Reports, P-25, Nos., 401, 404.

4. Ibid., p. 1.

5. James S. Brown and George A. Hillery, Jr., "The Great Migration, 1940-1960," in Thomas R. Ford (ed.), The Southern Appalachian Region: A Survey. Lexington: University of Kentucky Press, 1962.

6. Ibid., p. 58.

7. Meyer Zitter and Henry S. Shryock, Jr., "Accuracy of Methods of Preparing Postcensal Population Estimates for States and Local Areas," Demography, Vol. 1 (1964), pp. 227-241.

8. Charles L. Quittmeyer and Lorin A. Thomason, "The Development of Manufacturing", in Thomas R. Ford (ed.), The Southern Appalachian Region, pp. 128-129.

9. Gordon F. De Jong, Appalachian Fertility Decline: A Demographic and Sociological Analysis. Lexington: University of Kentucky Press, 1968, pp. 36.

10. Ibid., pp. 41-42, 45-46.

11. U.S. Bureau of the Census, Current Population Reports, P-25, Nos. 401, 404.

Table 1. Percentage Increase in Population Between Censuses for the Southern Appalachian Region and the United States, 1900 to 1966.

Area	1900-1910	1910-1920	1920-1930	1930-1940	1940-1950	1950-1960	1960-1966
Southern Appalachians	18.5	15.7	17.4	13.4	7.8	-2.8	-0.1
United States	21.0	15.0	16.2	7.3	14.5	18.5	9.3

Sources: Compiled from U.S. Census of Population and U.S. Bureau of the Census, Current Population Reports P-25, Nos. 401, 404.

Table 2. Net Migration for the Southern Appalachian Region, 1940-50, 1959-60, and 1960-66.

Period	Estimated Average Annual	
	Number	Rate
1940-50	- 70,585	-1.3
1950-60	-110,813	-1.9
1960-66	- 36,300	-0.6

Sources: J.S. Brown and G.A. Hillery, Jr., in T. R. Ford (ed.) The Southern Appalachian Region: A Survey, and U.S. Bureau of the Census, Current Population Reports P-25, Nos., 401, 404.

Figure 1.

Estimated Average Annual Net Migration Rate, 1960-1966

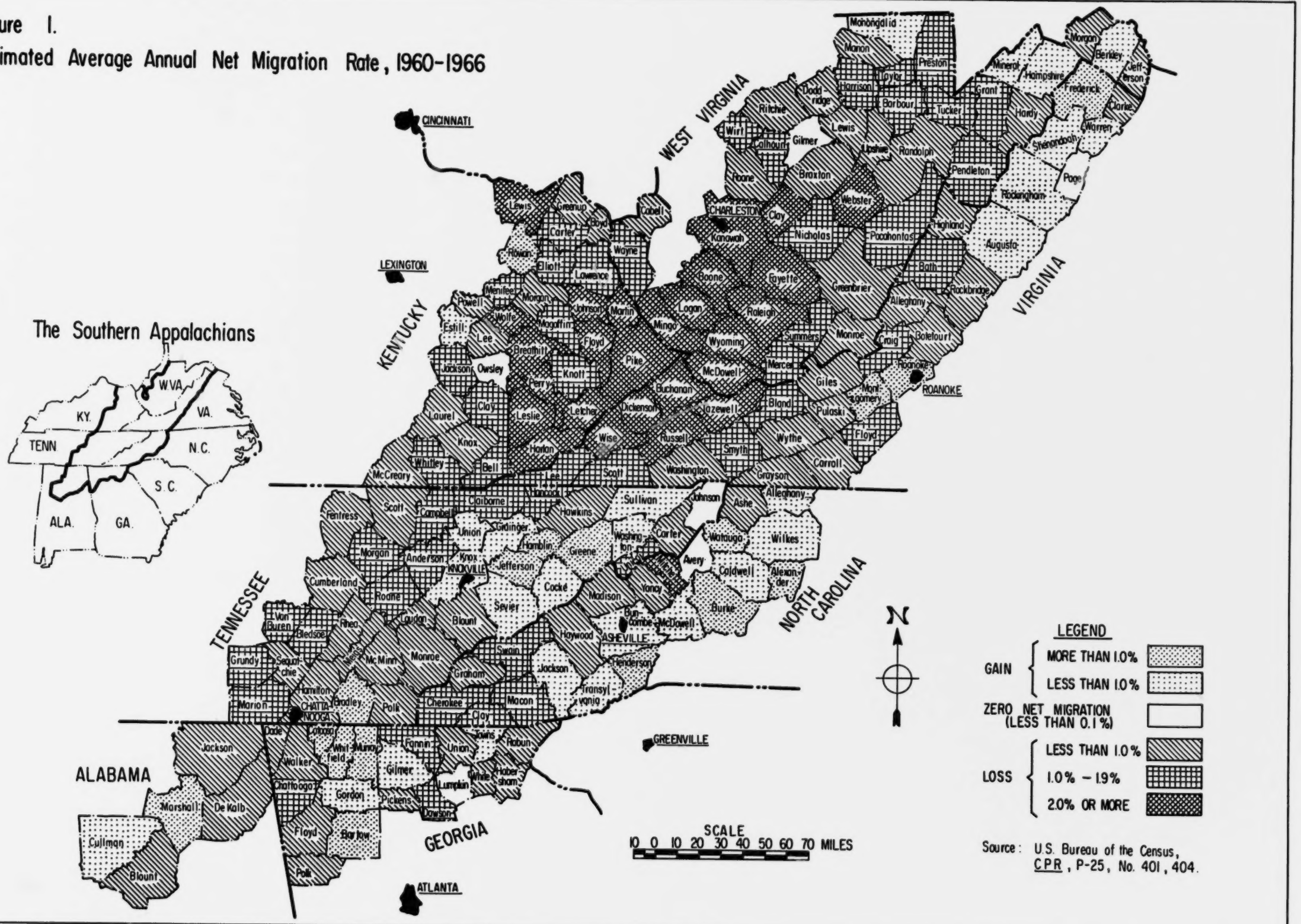
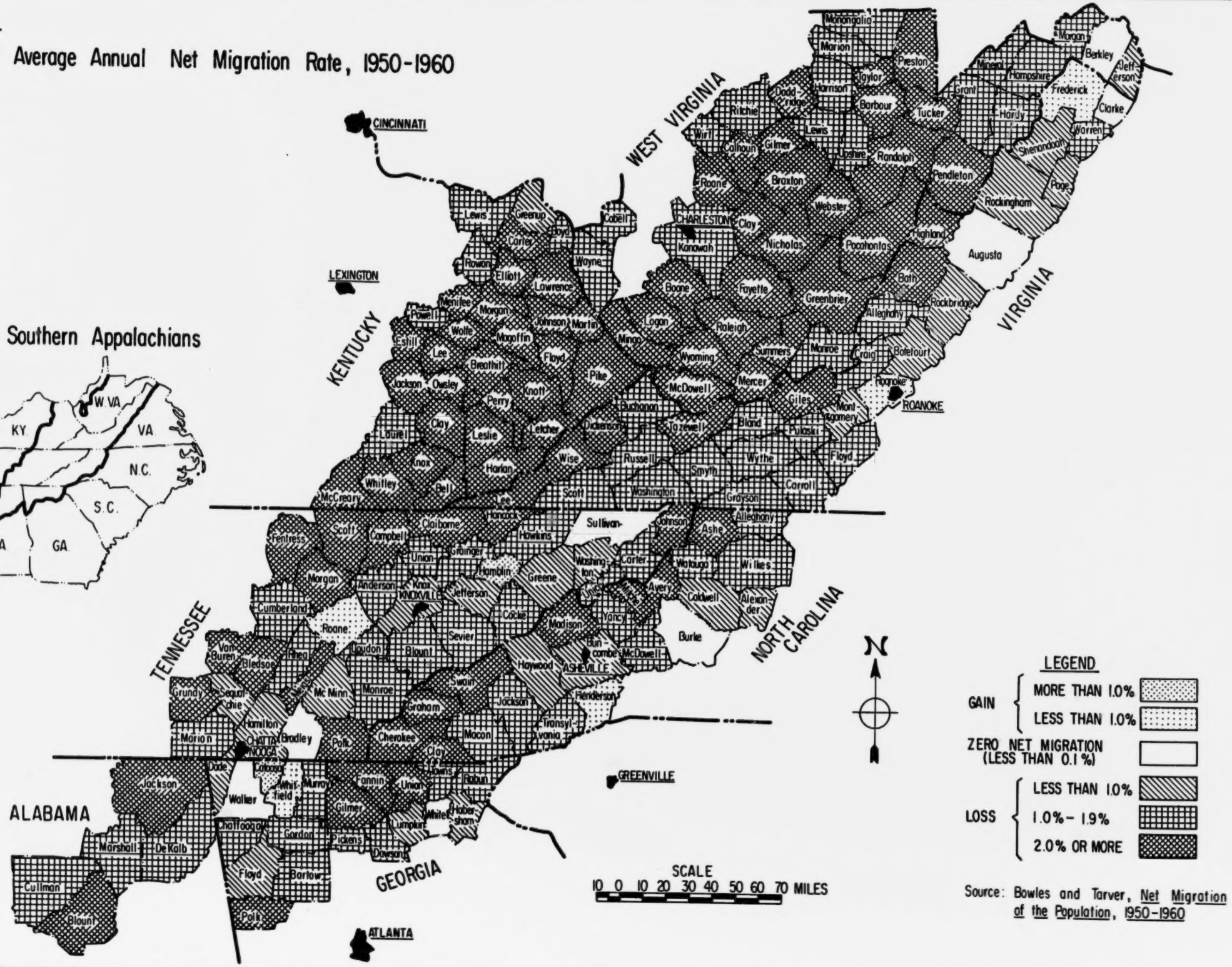

The Southern Appalachians
W.VA.
KY.
VA.
TENN.
N.C.
S.C.
ALA.
GA.
WEST VIRGINIA
VIRGINIA
KENTUCKY
TENNESSEE
NORTH CAROLINA
ALABAMA
GEORGIA
CINCINNATI
LEXINGTON
CHARLESTON
ROANOKE
KNOXVILLE
ASHEVILLE
CHATTANOOGA
GREENVILLE
ATLANTA
Mineral
Hampshire
Morgan
Berkley
Jefferson
Frederick
Clarke
Warren
Shenandoah
Page
Rockingham
Augusta
Highland
Pocahontas
Bath
Rockbridge
Alleghany
Botetourt
Craig
Monroe
Summers
Greenbrier
Pendleton
Randolph
Tucker
Barbour
Upshur
Lewis
Gilmer
Braxton
Webster
Nicholas
Fayette
Raleigh
Wyoming
McDowell
Mercer
Giles
Montgomery
Pulaski
Floyd
Carroll
Grayson
Wythe
Bland
Tazewell
Buchanan
Dickenson
Russell
Smyth
Washington
Scott
Lee
Wise
Harlan
Letcher
Perry
Knott
Pike
Mingo
Logan
Boone
Clay
Kanawha
Putnam
Mason
Jackson
Roane
Calhoun
Ritchie
Doddridge
Harrison
Taylor
Preston
Monongalia
Marion
Wetzel
Tyler
Pleasants
Wood
Wirt
Gilmer
Lewis
Upshur
Randolph
Barbour
Tucker
Grant
Hardy
Pendleton
Page
Rockingham
Augusta
Highland
Pocahontas
Greenbrier
Monroe
Craig
Botetourt
Roanoke
Montgomery
Giles
Mercer
McDowell
Wyoming
Summers
Raleigh
Fayette
Boone
Logan
Mingo
Wayne
Cabell
Lincoln
Boone
Clay
Braxton
Webster
Nicholas
Greenbrier
Pocahontas
Bath
Rockbridge
Alleghany
Craig
Botetourt
Roanoke
Montgomery
Pulaski
Floyd
Carroll
Grayson
Wythe
Bland
Tazewell
Buchanan
Dickenson
Russell
Smyth
Washington
Scott
Lee
Wise
Harlan
Letcher
Perry
Knott
Pike
Floyd
Magoffin
Johnson
Martin
Lawrence
Elliott
Morgan
Menifee
Powell
Wolfe
Estill
Lee
Breathitt
Owsley
Jackson
Clay
Laurel
Knox
Whitley
McCreary
Bell
Leslie
Greenup
Boyd
Carter
Rowan
Elliott
Lawrence
Johnson
Martin
Pike
Knott
Perry
Leslie
Letcher
Harlan
Bell
Whitley
McCreary
Knox
Clay
Owsley
Jackson
Laurel
Lee
Breathitt
Menifee
Powell
Wolfe
Estill
Magoffin
Floyd
Pike
Mingo
Logan
Wayne
Cabell
Lincoln
Putnam
Mason
Jackson
Roane
Calhoun
Gilmer
Lewis
Upshur
Randolph
Barbour
Tucker
Grant
Hardy
Pendleton
Page
Rockingham
Augusta
Highland
Pocahontas
Bath
Rockbridge
Alleghany
Craig
Botetourt
Roanoke
Montgomery
Giles
Mercer
McDowell
Wyoming
Summers
Raleigh
Fayette
Boone
Logan
Mingo
Wayne
Cabell
Lincoln
Putnam
Mason
Jackson
Roane
Calhoun
Ritchie
Doddridge
Harrison
Taylor
Preston
Monongalia
Marion
Wetzel
Tyler
Pleasants
Wood
Wirt

Figure 2.

Estimated Average Annual Net Migration Rate, 1950-1960



Source: Bowles and Tarver, Net Migration of the Population, 1950-1960

Figure 3.
Estimated Average Annual Net Migration, 1960-1966

CINCINNATI
LEXINGTON
KENTUCKY
WEST VIRGINIA
VIRGINIA
TENNESSEE
NORTH CAROLINA
ALABAMA
GEORGIA
CHARLESTON
ROANOKE
KNOXVILLE
ASHEVILLE
CHATTANOOGA
GREENVILLE
ATLANTA

Monongalia, Marion, Preston, Morgan, Berkley, Jefferson, Taylor, Harrison, Barbour, Tucker, Mineral, Hampshire, Frederick, Clarke, Dodd-ridge, Ritchie, Lewis, Grant, Hardy, Warren, Wirt, Calhoun, Gilmer, Upshur, Randolph, Shenandoah, Page, Roane, Braxton, Webster, Pendleton, Rockingham, Lewis, Greenup, Cabell, Clay, Highland, Carter, Boyd, Nicholas, Pocahontas, Augusta, Kanawha, Rowan, Elliott, Wayne, Bath, Lawrence, Boone, Fayette, Greenbrier, Rockbridge, Menifee, Morgan, Powell, Johnson, Martin, Logan, Raleigh, Allegheny, Wolfe, Magoffin, Mingo, Monroe, Craig, Botetourt, Estill, Lee, Breathitt, Floyd, Wyoming, Summers, Roanoke, Jackson, Owsley, Perry, Knott, Pike, Mercer, Giles, Montgomery, Buchanan, Bland, Pulaski, Clay, Leslie, Letcher, Dickenson, Tazewell, Floyd, Laurel, Knox, Harlan, Wise, Russell, Wythe, Carroll, Whitley, Bell, Smyth, Grayson, McCreary, Lee, Scott, Washington, Alleghany, Johnson, Ashe, Claiborne, Hancock, Hawkins, Sullivan, Scott, Campbell, Fentress, Union, Grainger, Washing-ton, Carter, Watauga, Wilkes, Morgan, Anderson, Knox, Hamblin, Greene, Unicoi, Avery, Caldwell, Alexan-der, Jefferson, Cumberland, Roane, Cocke, Madison, Yancy, Van Buren, Bledsoe, Rhea, Loudon, Blount, Bun-combe, McDowell, Burke, Sevier, Grundy, Sequat-chie, McMinn, Monroe, Swain, Haywood, Jackson, Henderson, Graham, Hamilton, Marion, Bradley, Polk, Cherokee, Macon, Transyl-vania, Clay, Towns, Dade, Catoosa, Whit-field, Murray, Fannin, Union, Rabun, Walker, Gilmer, Pickens, Gordon, Chattooga, Dawson, Habersham, Jackson, Marshall, DeKalb, Floyd, Bartow, Cullman, Blount, Polk

N

SCALE
10 0 10 20 30 40 50 60 70 MILES

LEGEND

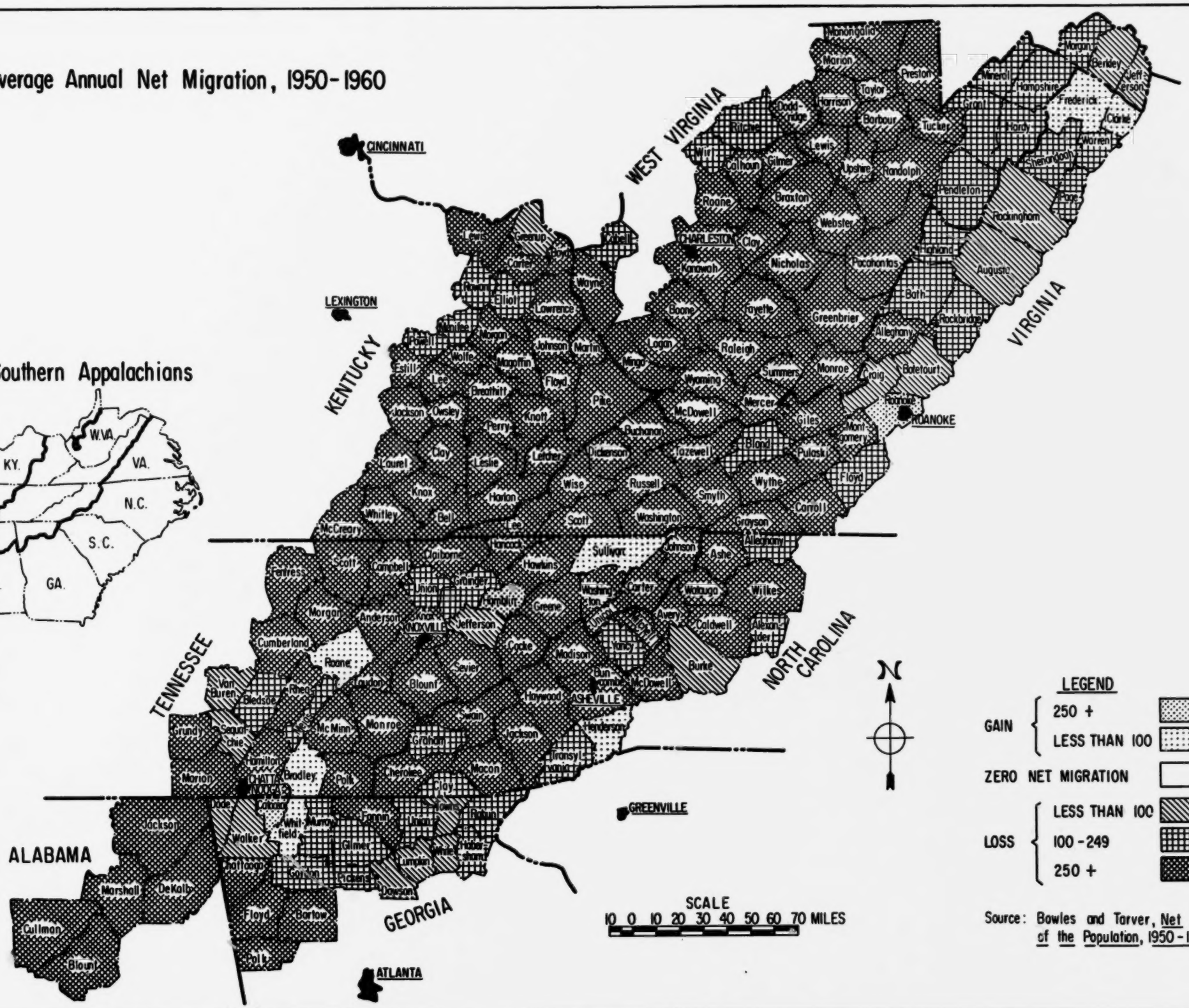
GAIN
- 250 +
- LESS THAN 100

ZERO NET MIGRATION

LOSS
- LESS THAN 100
- 100 - 249
- 250 +

Source: U.S. Bureau of the Census, CPR, P-25, No. 401, 404.

Figure 4.
Estimated Average Annual Net Migration, 1950-1960


CINCINNATI
LEXINGTON
WEST VIRGINIA
KENTUCKY
VIRGINIA
TENNESSEE
NORTH CAROLINA
ALABAMA
GEORGIA
CHARLESTON
KNOXVILLE
ASHEVILLE
ROANOKE
GREENVILLE
ATLANTA
Monongalia
Marion
Preston
Taylor
Harrison
Barbour
Tucker
Doddridge
Ritchie
Lewis
Upshur
Randolph
Gilmer
Calhoun
Wirt
Roane
Braxton
Webster
Clay
Nicholas
Pocahontas
Greenbrier
Pendleton
Grant
Hardy
Hampshire
Morgan
Berkley
Jefferson
Frederick
Clarke
Warren
Shenandoah
Page
Rockingham
Augusta
Highland
Bath
Alleghany
Botetourt
Craig
Monroe
Summers
Mercer
McDowell
Wyoming
Raleigh
Fayette
Boone
Logan
Mingo
Wayne
Lincoln
Putnam
Kanawha
Jackson
Mason
Cabell
Wood
Wirt
Roane
Calhoun
Gilmer
Braxton
Webster
Clay
Nicholas
Pocahontas
Greenbrier
Pendleton
Lewis
Greenup
Boyd
Carter
Elliott
Lawrence
Pike
Floyd
Knott
Perry
Leslie
Letcher
Harlan
Bell
Knox
Whitley
McCreary
Laurel
Clay
Owsley
Breathitt
Johnson
Martin
Magoffin
Wolfe
Morgan
Menifee
Powell
Estill
Lee
Jackson
Buchanan
Dickenson
Tazewell
Russell
Wise
Scott
Lee
Washington
Smyth
Wythe
Bland
Giles
Pulaski
Montgomery
Floyd
Carroll
Grayson
Alleghany
Ashe
Wilkes
Watauga
Avery
Caldwell
Alexander
Burke
McDowell
Yancey
Mitchell
Madison
Buncombe
Henderson
Transylvania
Haywood
Jackson
Swain
Macon
Clay
Graham
Cherokee
Polk
Rutherford
McMinn
Monroe
Sevier
Blount
Loudon
Roane
Anderson
Campbell
Claiborne
Grainger
Jefferson
Cocke
Greene
Hamblen
Hancock
Hawkins
Sullivan
Johnson
Washington
Unicoi
Carter
Union
Scott
Fentress
Morgan
Cumberland
Van Buren
Bledsoe
Rhea
Sequatchie
Grundy
Hamilton
Marion
Bradley
Polk
Meigs
Rhea
Whitfield
Murray
Gilmer
Fannin
Union
Towns
Dawson
Lumpkin
White
Habersham
Rabun
Jackson
Walker
Chattooga
Gordon
Pickens
Dade
Catoosa
Marshall
DeKalb
Floyd
Bartow
Cullman
Blount
Polk
Greene
Washington
Unicoi
Carter
Johnson
Ashe
Wilkes
Watauga
Avery
Caldwell
Alexander
Burke
Yancey
Mitchell
Madison
Buncombe
McDowell
Henderson
Transylvania
Haywood
Jackson
Swain
Macon
Clay
Graham
Cherokee
Polk
Rutherford
Lincoln
Putnam
Mason
Cabell
Wood
Wirt
Roane
Calhoun
Gilmer
Braxton
Webster
Clay
Nicholas
Pocahontas
Greenbrier
Pendleton
Lewis
Greenup
Boyd
Carter
Elliott
Lawrence
Pike
Floyd
Knott
Perry
Leslie
Letcher
Harlan
Bell
Knox
Whitley
McCreary
Laurel
Clay
Owsley
Breathitt
Johnson
Martin
Magoffin
Wolfe
Morgan
Menifee
Powell
Estill
Lee
Jackson
Buchanan
Dickenson
Tazewell
Russell
Wise
Scott
Lee
Washington
Smyth
Wythe
Bland
Giles
Pulaski
Montgomery
Floyd
Carroll
Grayson
Alleghany
Ashe
Wilkes
Watauga
Avery
Caldwell
Alexander
Burke
McDowell
Yancey
Mitchell
Madison
Buncombe